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is selected from the group consisting of amino acids 384-641 of SEQ ID NO: 1, derivatives thereof, a polypeptide having 70% or greater homology to amino acids 384-641 of SEQ ID NO: 1 and derivatives thereof, under conditions which comprise stimulation of NK cells.

32. The method of claim 31, wherein said activation of said cells further comprises stimulation of proliferation and/or an increase in cytotoxicity.

33. The method of claim 31, wherein said physiological suspension containing NK cells comprises a peripheral mononuclear blood cell fraction or fractions thereof.

34. The method of claim 31, wherein said suspension further comprises cells expressing cell-surface Hsp70.

35. The method of claim 34, wherein said expressing cells comprise diseased cells from a patient.

36. The method of claim 35, wherein said diseased cells are selected from the group consisting of leukemia cells, lymphoma cells, tumor cells, metastasizing cells of solid tumors, and cells from a virally, mycotically and/or bacterially infected patient.

37. The method of any one of claims 36, wherein said contacting is carried out for at least 3 hours.

38. The method of claim 37, wherein said contacting is carried out for 4 days.

39. The method of claim 37, wherein said conditions further comprise addition of a cytokine.

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40. The method of claim 39, wherein the cytokine is an interleukin.

41. The method of claim 40, wherein said interleukin is selected from the group consisting of IL-2, IL-12 and IL-15.

Cont

42. A method for the in vivo activation of the immune system in a patient in need thereof comprising:

i) administering to said patient a pharmaceutically effective amount of NK cells obtained by the method of claim 37 and

ii) optionally administering to said patient, concurrently or subsequently, a pharmaceutically effective amount of a Hsp70 protein of SEQ ID NO: 1 or a C-terminal fragment of Hsp70, wherein said fragment is selected from the group consisting of amino acids 384-641 of SEQ

ID NO: 1, derivatives thereof, a polypeptide having 70% or greater homology to amino acids 384-641 of SEQ ID NO: 1 and derivatives thereof.

43. The method of claim 42, where said patient is suffering from a disease selected from the group consisting of cancerous, infectious and autoimmune diseases.

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44. The method of claim 42, wherein said administration is carried out for at least 3 hours.

45. The method of claim 44, wherein said administration further comprises addition of a cytokine.

46. The method of claim 45, wherein said cytokine is an interleukin.

47. The method of claim 46, wherein said interleukin is selected from the group consisting of IL-2, IL-12 and IL-15.

48. The method of claim 43, wherein said cancerous diseases are selected from the group consisting of tumors, solid tumors, metastatic tumors, leukemias and lymphomas.

49. The method of claim 43, wherein said infectious diseases are viral, mycotic or bacterial diseases.

50. A pharmaceutical composition comprising a Hsp70 protein of SEQ ID NO: 1 or a C-terminal fragment of Hsp70, wherein said fragment is selected from the group consisting of amino acids 384-641 of SEQ ID NO: 1, derivatives thereof, a polypeptide having 70% or greater homology to amino acids 384-641 of SEQ ID NO: 1 and derivatives thereof, and a pharmaceutically acceptable carrier, excipient or diluent.

51. The composition of claim 50, wherein said protein or fragment is present at a concentration of about 10 μg/ml to about 1000 μg/ml.

52. The composition of claim 50, wherein said protein or fragment is of human origin.

53. The composition of claim 50, wherein said protein or fragment is recombinant.

54. A pharmaceutical composition comprising NK cells activated by the method of claim 31.

55. A method for in vivo activation of the immune system in a patient in need thereof comprising administering to said patient a pharmaceutically effective amount of a Hsp70 protein of SEQ ID NO: 1 or a C-terminal fragment of Hsp70, wherein said fragment is selected from the group consisting of amino acids 384-641 of SEQ ID NO: 1, derivatives thereof, a polypeptide having 70% or greater homology to amino acids 384-641 of SEQ ID NO: 1 and derivatives thereof.

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56. The method of claim 55, where said patient is suffering from a disease selected from the group consisting of cancerous, infectious and autoimmune disease.

57. The method of claim 55, wherein said administration is carried out for at least 3 hours.

58. The method of claim 56, wherein said administration further comprises addition of a cytokine.

59. The method of claim 58, wherein said cytokine is an interleukin.